

### **Amendments to the Claims**

This listing of claims will replace all prior versions and listings of claims in the application:

#### **Listing of Claims**

Claim 1 (cancelled)

Claim 2 (previously presented): A method of inhibiting graft versus host disease in a mammal requiring donor lymphocyte infusion, said method comprising:

- a) contacting the donor lymphocytes to be infused with an aqueous solution containing a therapeutically effective amount of L-leucyl-L-leucine methyl ester *ex vivo*;
- b) selectively eliminating cytotoxic T-cells;
- c) infusing said donor lymphocytes into said mammal; and
- d) inhibiting graft versus host disease, wherein said mammal requires donor lymphocyte infusion following allogeneic T cell-depleted hematopoietic stem cell transplantation.

Claim 3 (previously presented): A method of inhibiting graft versus host disease in a mammal requiring donor lymphocyte infusion, said method comprising:

- a) contacting the donor lymphocytes to be infused with an aqueous solution containing a therapeutically effective amount of L-leucyl-L-leucine methyl ester *ex vivo*;
- b) selectively eliminating cytotoxic T-cells;
- c) infusing said donor lymphocytes into said mammal; and
- d) inhibiting graft versus host disease, wherein said infusing of said donor lymphocytes into said mammal occurs after donor hematopoietic stem cell engraftment.

Claim 4 (canceled)

Claim 5 (currently amended) A method of inhibiting graft versus host disease in a mammal requiring transplant of CD34<sup>+</sup> stem cells, said method comprising:

- a) ~~obtaining a preparation of hematopoietic stem cells from a mammal;~~
- ba) separating said hematopoietic stem cells to be infused into CD34<sup>+</sup> and CD34<sup>-</sup> fractions;
- eb) contacting said CD34<sup>-</sup> hematopoietic stem cell fraction with an aqueous solution containing a therapeutically effective amount of L-leucyl-L-leucine methyl ester *ex vivo*;
- ec) selectively eliminating cytotoxic T-cells in the CD34<sup>-</sup> hematopoietic stem cell fraction;
- ed) co-administering a therapeutically effective amount of said L-leucyl-L-leucine methyl ester-treated CD34<sup>-</sup> hematopoietic stem cell fraction with said CD34<sup>+</sup> hematopoietic stem cell fraction; and
- fe) inhibiting graft versus host disease.

Claim 6 (previously presented): The method according to any one of claims 2, 3, or 5, wherein said mammal is a human.

Claim 7 (canceled)

Claim 8 (currently amended): The method according to any one of claims 2, 3, or 5, wherein said therapeutically effective amount of L-leucyl-L-leucine methyl ester is from about 40 1 micromolar to about 500 250 micromolar.

Claim 9 (currently amended): The method according to any one of claims 2, 3, or 5, wherein said therapeutically effective amount of L-leucyl-L-leucine methyl ester is ~~at least about 500~~ 375 micromolar.

Claim 10 (currently amended): The method according to any one of claims 2, 3, or 5, wherein said contact is for ~~at least~~ 15 minutes.

Claim 11 (previously presented): The method according to claim 5, wherein said CD34<sup>+</sup> fraction is frozen after being contacted with said L-leucyl-L-leucine methyl ester.

Claim 12 (new): A method of preventing graft versus host disease in a mammal requiring donor lymphocyte infusion, said method comprising:

- a) contacting the donor lymphocytes to be infused with an aqueous solution containing a therapeutically effective amount of L-leucyl-L-leucine methyl ester ex vivo;
- b) selectively eliminating cytotoxic T-cells;
- c) infusing said donor lymphocytes into said mammal; and
- d) preventing graft versus host disease, wherein said mammal requires donor lymphocyte infusion following allogeneic T cell-depleted hematopoietic stem cell transplantation.

Claim 13 (new): A method of preventing graft versus host disease in a mammal requiring donor lymphocyte infusion, said method comprising:

- a) contacting the donor lymphocytes to be infused with an aqueous solution containing a therapeutically effective amount of L-leucyl-L-leucine methyl ester ex vivo;
- b) selectively eliminating cytotoxic T-cells;
- c) infusing said donor lymphocytes into said mammal; and
- d) preventing graft versus host disease, wherein said infusing of said donor lymphocytes into said mammal occurs after donor hematopoietic stem cell engraftment.

Claim 14 (new): A method of preventing graft versus host disease in a mammal requiring transplant of CD34<sup>+</sup> stem cells, said method comprising:

- a) separating hematopoietic stem cells to be infused into CD34<sup>+</sup> and CD34<sup>-</sup> fractions;

b) contacting said CD34<sup>+</sup> hematopoietic stem cell fraction with an aqueous solution containing a therapeutically effective amount of L-leucyl-L-leucine methyl ester *ex vivo*;

c) selectively eliminating cytotoxic T-cells in the CD34<sup>+</sup> hematopoietic stem cell fraction;

d) co-administering a therapeutically effective amount of said L-leucyl-L-leucine methyl ester-treated CD34<sup>+</sup> hematopoietic stem cell fraction with said CD34<sup>+</sup> hematopoietic stem cell fraction; and

e) preventing graft versus host disease.